

DANIEL R. FELDMAN

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PROFESSIONAL EMPLOYMENT

| | | |
|--------------|-------------------------------------|---------------------------------------|
| 2011-Present | <i>Geological Project Scientist</i> | <i>Lawrence Berkeley National Lab</i> |
| 2008-2011 | <i>Postdoctoral Fellow</i> | <i>UC-Berkeley</i> |
| 2002-2008 | <i>Graduate Student</i> | <i>Caltech</i> |
| 2001 | <i>Summer Intern</i> | <i>Los Alamos National Laboratory</i> |
| 2000-2002 | <i>Undergraduate Researcher</i> | <i>MIT</i> |
| 1998-1999 | <i>Intel Honors Intern</i> | <i>Intel, Corp.</i> |

EDUCATION

- Ph.D., Environmental Science and Engineering, Caltech 2008.
- M.S., Environmental Science and Engineering, Caltech 2004.
- B.S., Environmental Engineering Science, MIT 2002.
 - Minors in Earth and Planetary Science and Latin American Studies.
- High School Diploma, Woodrow Wilson High School, 1998.

PEER-REVIEWED PUBLICATIONS

- **Feldman, D.R.**, W.D. Collins, et al, (2011), Simulations Studies for the Detection of Changes in Broadband Albedo and Shortwave Reflectance Spectra under a Climate Change Scenario. *Journal of Geophysical Research-Atmospheres* (In Press).
- **Feldman, D. R.**, C. A. Algieri, J. R. Ong, and W. D. Collins (2011), CLARREO shortwave observing system simulation experiments of the twenty-first century: Simulator design and implementation, *J. Geophys. Res.*, 116, D10107, doi:10.1029/2010JD015350.
- **Feldman, D.R.**, K.N. Liou., T.S. L'Ecuyer, Y.L. Yung, (2008), Remote Sensing of Tropical Tropopause Layer Radiation Balance Using A-Train Measurements, *Journal of Geophysical Research-Atmospheres*, 113, D21113, doi:10.1029/2008JD010158.
- **Feldman D. R.**, K. N. Liou, R. L. Shia, Y. L. Yung (2008), On the information content of the thermal infrared cooling rate profile from satellite instrument measurements, *Journal of Geophysical Research-Atmospheres*, 113, D11118, doi:10.1029/2007JD009041.
- Su, H., J.H. Jiang, Y. Gu, J.D. Neelin, B.H. Kahn, **D.R. Feldman**, Y.L. Yung, J.W. Waters, N.J. Livesey, M.L. Santee (2008), Variations of tropical upper tropospheric clouds with sea surface temperature and implications for radiative effects, *Journal of*

Geophysical Research-Atmospheres, 113, D10211, doi:10.1029/2007JD009624.

- Li, L., A. P. Ingersoll, X. Jiang, **D.R. Feldman**, and Y. L. Yung (2007), Lorenz energy cycle of the global atmosphere based on reanalysis datasets, *Geophysical Research Letters*, 34, L16813, doi:10.1029/2007GL029985.
- Guo, X., V. Natraj, **D.R. Feldman**, R.J.D. Spurr, R.L. Shia, S.P. Sander, Y.L. Yung (2007), Retrieval of ozone profile from ground-based measurements with polarization: A synthetic study, *Journal of Quantitative Spectroscopy and Radiative Transfer*, 103 (1), p.175-192.
- **Feldman, D. R.**, K. N. Liou, Y. L. Yung, D. C. Tobin, and A. Berk (2006), Direct retrieval of stratospheric CO₂ infrared cooling rate profiles from AIRS data, *Geophysical Research Letters*, 33, L11803, doi:10.1029/2005GL024680.

TEACHING AND SERVICE

- Curriculum development for a short course program in climate modeling and remote sensing through NASA Ames, 2011.
- Guest Lecturer, Atmospheric Physics and Dynamics, University of California-Berkeley, 2010.
- Guest Lecturer and Teaching Assistant, Atmospheric Radiation, Caltech, 2006-2007.
- Peer reviewer for Proceedings of the National Academy of Sciences, Journal of Climate, and the Journal of Geophysical Research Atmospheres.

INVITED TALKS

- Oregon State University College of Oceanic and Atmospheric Sciences, 2011, Corvallis, OR.
- 33rd Meeting on Atmospheric Transmission Models, 2011, Lexington, MA.
- UC-Berkeley Atmospheric Sciences Seminar, 2011, Berkeley, CA.

PUBLIC PRESENTATIONS

- Collins, W.D., **D.R. Feldman** (2010), Climate Change Time-to-Detection Simulations using IPCC Models for Shortwave Forcings and Feedbacks, EOS Transactions AGU, 91(52), Fall Meeting Supplemental, Abstract GC53C-04.
- **Feldman, D.R.**, W.D. Collins (2010), Spectral Forcing and Feedback Signals in IPCC Simulations: Simulations of Next-Generation Observing Systems, EOS Transactions AGU, 91(52), Fall Meeting Supplemental, Abstract GC41B-0896.
- **Feldman, D.R.**, W.D. Collins, et al (2010), Observational System Simulation Experiments of CLARREO Shortwave Reflectance Spectra, 11th International Meeting on Statistical Climatology, Edinburgh, UK.
- **Feldman, D.R.**, W.D. Collins, et al (2010), The Earth's Reflected Shortwave Spectrum: Present and Future, 13th American Meteorological Conference on Atmospheric Radiation and Cloud Physics, Portland, Oregon.
- **Feldman, D.R.**, W.D. Collins (2009), Detecting Aerosols and Greenhouse Gases

Forcings using Shortwave CLARREO Spectra, EOS Transactions AGU, 90(52), Fall Meeting Supplemental, Abstract GC51B-07.

- Collins, W.D., **D.R. Feldman**, (2009), Detecting Land Surface and Cloud Feedbacks using Shortwave CLARREO Spectra, EOS Transactions AGU, 90(52), Fall Meeting Supplemental, Abstract GC51B-08.
- **Feldman, D.R.**, W.D. Collins (2008), CLARREO Shortwave Observing System Simulation Experiment to Detect Forcing and Feedback, EOS Transactions AGU, 89(53), Fall Meeting Supplemental, Abstract GC23A-0740.
- **Feldman, D.R.**, K.N. Liou, Y.L. Yung, D. Johnson, M. Mlynczak (2007), Determination of atmospheric temperature, water vapor, and heating rates from mid- and far- infrared hyperspectral measurements, EOS Transactions AGU, 88(52), Fall Meeting Supplemental, Abstract GC34A-02.
- **Feldman, D.R.**, K.N. Liou, Y.L. Yung (2007), Remote Sensing of TTL Radiation Balance, 14th American Meteorological Conference on the Middle Atmosphere, Session on Recent Field Investigations of the TTL, Portland, OR.
- **Feldman, D.R.**, K.N. Liou, Y.L. Yung (2006), Validation of a Direct Cooling Rate Retrieval Method Using AIRS and TES Data, EOS Transactions AGU, 87(52), Fall Meeting Supplemental, Abstract A13B-0891.
- **Feldman, D.R.**, L. Kuai, V. Natraj, Y.L. Yung (2006), Introductory Tools for Radiative Transfer Models, EOS Transactions AGU, 87(52), Fall Meeting Supplemental, Abstract ED43B-0939.
- **Feldman, D.R.**, K.N. Liou, Y.L. Yung, D. Tobin, L. Berk (2005), Direct Retrieval of Radiative Flux-Divergence and Radiative Forcing from Satellite Spectral Measurements, EOS Transactions AGU, 86(52), Fall Meeting Supplemental, Abstract A43B-0084.

AWARDS

- Dissertation Initiative for Climate Change Research Symposium Alumnus, 2010.
- Caltech-Y Lisa Guernsey Community Service Award, 2007.
- NASA Earth Systems Science Fellow 2005-2008.
- MIT CEE Department Richard Lee Russel Award for Continued Graduate Study, 2002.
- Malcom G. Kispert Award for Distinguished Scholar-Athlete, 2002.
- MIT Straight-T Award, 2001-2002.
- NCAA Division III Indoor Track All-American (5000 m), 2002.
- NCAA Division III Cross Country All-American, 2001.
- High School Valedictorian, 1998.
- Advanced Placement Scholar with Distinction, 1998.
- National Merit Scholarship Semifinalist, 1998.

PROFESSIONAL AFFILIATIONS

- CLimate Absolute Radiance and Refractivity Observatory Science Definition Team Member 2008-Present.
- AIRS Science Team Contributor 2004-2008
- Orbiting Carbon Observatory Science Team Contributor 2004-2006
- American Geophysical Union, 2004-Present

VOLUNTEERING

- First Lego League volunteer coach, 2009-2010.
- Caltech Y volunteer, 2002-2008.
- President, Caltech Environmental Task Force, 2003-2007.
- Member, MIT SAVE environmental club, 1999-2002.
- Volunteer, Amigos de las Americas, 1996-1997.